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ABSTRACT

This paper offers guidelines for policy makers who are responsible for establishing incentive programs for teachers. It provides a framework for: (1) identifying performance-based incentive systems; (2) examining their underlying assumptions; (3) classifying program operations (types of incentives, methods of reward delivery, timing and types of performance standards and measures); and (4) checking that a program as implemented is ready for evaluation. The prospects for learning from incentive experiments are discussed. (JD)

GUIDELINES

Guidelines for Evaluating Teacher Incentive Systems

No. TQ84-7

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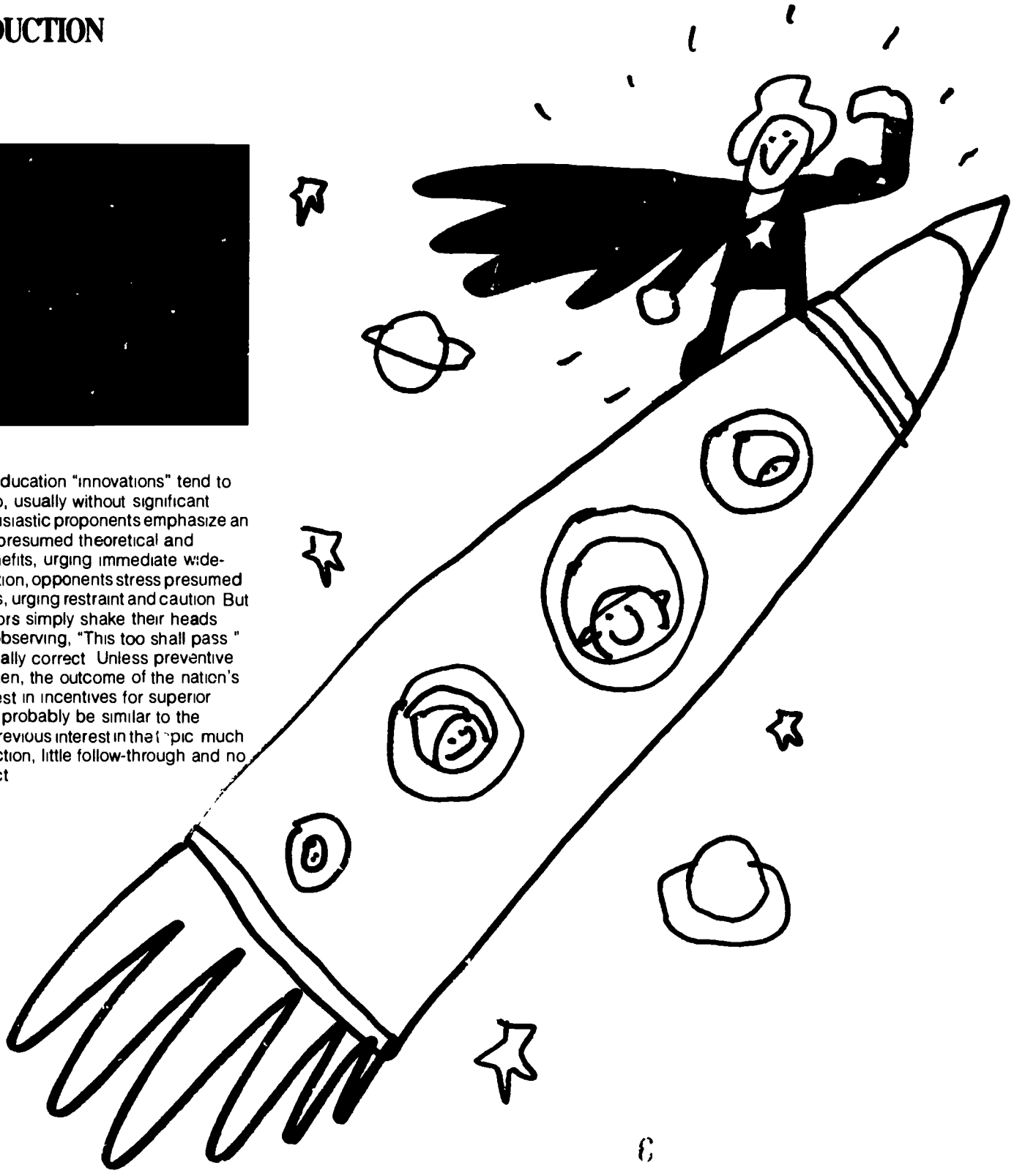
INTRODUCTION

Education "innovations" tend to come and go, usually without significant effects Enthusiastic proponents emphasize an innovation's presumed theoretical and practical benefits, urging immediate widespread adoption, opponents stress presumed shortcomings, urging restraint and caution But most educators simply shake their heads skeptically, observing, "This too shall pass " They are usually correct Unless preventive steps are taken, the outcome of the nation's current interest in incentives for superior teachers will probably be similar to the outcome of previous interest in the topic much talk, some action, little follow-through and no lasting impact



Incentives for teachers have once again been placed on America's agenda for improving education **A Nation at Risk,** the report of the National Commission on Excellence in Education, called for making teachers' salaries "professionally competitive, market-sensitive and performance-based ' In its report, **Action for Excellence,** the Education Commission of the States' Task Force on Education for Economic Growth urged state and local education agencies to improve recruiting, training and paying teachers The report called for "financial incentives" and "extraordinary rewards for extraordinary teachers expanded pay and recognition not just for reaching the upper levels of seniority, but for reaching the upper levels of competence and effectiveness as well " The Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy recommended that the federal government set up a master teacher incentive program to provide recognition and substantial grants to teachers of exceptional merit President Reagan has emphasized incentives for excellence in his calls for school improvement, noting, "Secretary Bell and I have been pushing hard for a national agenda for excellence in education, and one of the first items on it is the concept of merit pay for teachers If we want to achieve excellence, we must reward it It is a simple American philosophy that dominates many other professions, so why not this one?" And the U S Congress, specifically the House Task Force on Merit Pay, tentatively endorsed the President's stand "despite mixed and inconclusive past results with performance-based pay in the private sector and in education, we support and encourage [state and local] experiments with performance-based pay "

Yet, as the House Task Force report has recognized, performance-based incentive systems have so far not lived up to expectations In a 1979 survey on merit pay, the Educational Research Service pointed out that differential pay plans for teachers have been tried since the early 1900s, with one wave of interest peaking in the 1920s and another in the mid-1960s Only 4% of the nation's school districts were using any form of "merit pay" by 1978, twice as many districts report they had abandoned merit pay systems

Why, then, the new optimism of 1984?

One reason for optimism is that recent research-based advances in knowledge about effective teaching and teacher assessment have encouraged people to conclude that problems plaguing past efforts can be solved The present political climate, which promotes free-enterprise solutions to social problems, supports the notion that offering incentives to teachers will increase education excellence Even the teacher unions, historically hostile to merit pay, have recently expressed a willingness to consider plans that offer differential rewards for differential performance, provided that teachers participate voluntarily and that teachers help set performance criteria and assess performance

But can the opportunity for new optimism be seized? And, if it is, will we be able to learn from the results? Research has demonstrated that well-performed evaluations of an innovative education practice can significantly affect the "no impact" cycle, first by helping to refine and improve the practice, and then by demonstrating its benefits to the wider audience that typically resists major changes. Proper program evaluation is thus a useful step to take in the experiments with performance-based incentives now under way or being contemplated around the country.

Haphazard evaluations, though, may do more harm than good. Subjective and anecdotal reports, communicated in imprecise language, will do little to advance knowledge about the implementation of workable performance-based incentive systems or their benefits and costs. Moreover, studies that provide only the illusion of knowledge may encourage policy makers to draw erroneous conclusions about performance-based teacher incentives. Not suprisingly, Hatry and Greiner were recently forced to conclude that there is "little convincing evidence (that is, evidence with even minimal rigor) — one way or another — on whether teacher merit pay plans have substantially affected student achievement, teacher retention rates or the ability to attract new (higher quality) teachers." The few evaluations undertaken to date have been almost totally subjective, and determining what types of "merit pay" systems were actually evaluated is difficult.

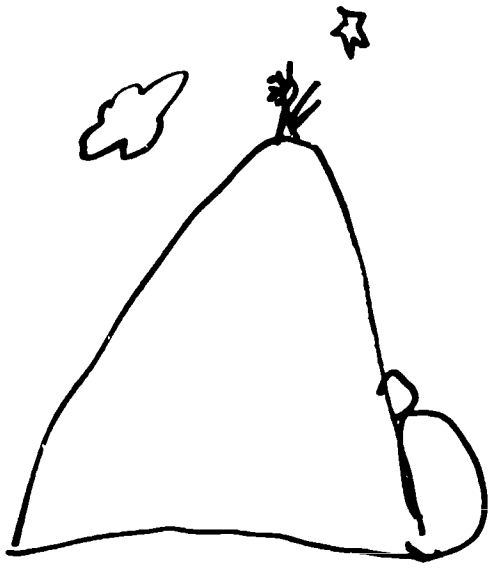
Unless this problem is eliminated in the current round of incentive experiments, the result is likely to be what it has been in the past: inability to distinguish between the outcomes of performance-based systems and the outcomes of other kinds of incentive systems. Five years hence, we may still be unable to answer the question, "Can superior teachers be rewarded?"

This paper is intended to help avoid such an unfortunate outcome. It provides a framework for **1.** identifying performance-based incentive systems, **2.** examining their underlying assumptions, **3.** classifying program operations and **4.** checking that a program as implemented is ready for evaluation.

1. IDENTIFYING PERFORMANCE-BASED INCENTIVES

The possibility of learning from new experiments with teacher incentives is clouded by the confusing terminology educators and policy makers are using For the purposes of this paper, an incentive is any commonly valued reward whose delivery is contingent on the attainment of some agreed-upon goal or standard * Incentives and rewards can therefore be quite various The anticipation of money is a widely valued incentive, and cash is a widely offered reward Material objects, events and opportunities to engage in desirable activities can also constitute rewards A range of rewards that might be useful in teacher incentive programs will be discussed in Section 3 For convenience, cash rewards will not be differentiated from other types of rewards in this preliminary discussion

*From a theoretical perspective, it is often necessary to treat rewards and incentives as different concepts an incentive is the effect of anticipating a reward This paper uses these concepts



Generally, the goal of an incentive system is to promote and maintain a certain level of behavior An incentive based on performance is one in which the reward is contingent on some predetermined aspect of **task or job behavior;** usually, a high level of quality or quantity in performance must be achieved before the reward is delivered In contrast, traditional rewards for teachers are not based directly on performance but on some measure of **status** or **job responsibility** that is presumed to correlate with performance In this case, status might refer to education level or years spent teaching Job responsibility might refer to serving as department chairperson But to be performance-based, a reward must be delivered only when job performance has met or exceeded some predetermined standard

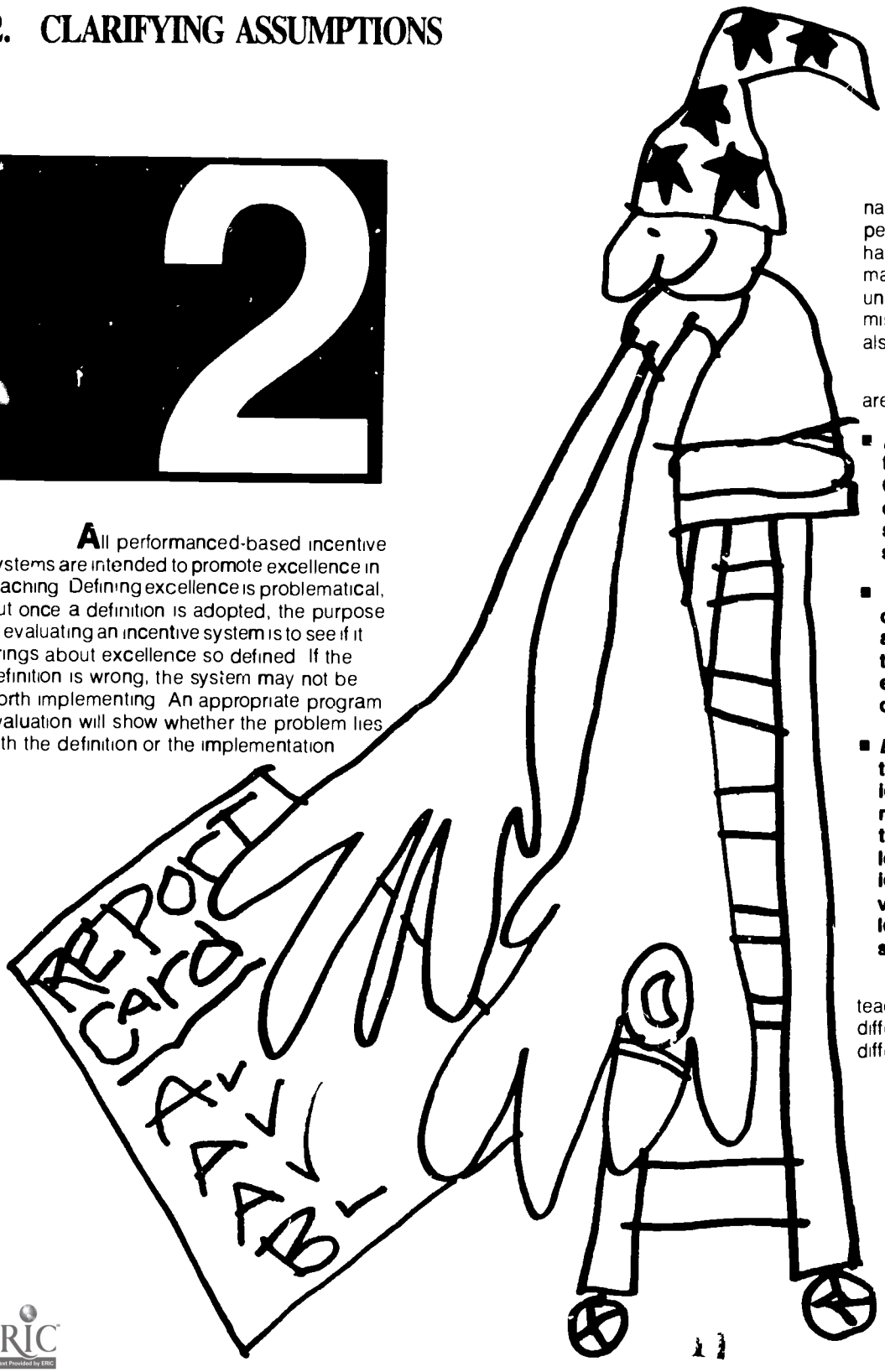
Consider two common types of education reward systems In one system, teachers are awarded higher salaries as a function of their education and their teaching experience In the other, teachers are awarded higher salaries or bonuses as a function of their teaching skills, measured by their demonstration of "effective teaching" behavior In the first system, rewards are contingent on course-taking and persistence in employment, in the second, they are contingent on teaching behavior Only in the second system is the quality of job performance directly relevant The evaluation of job performance is the key ingredient of performance-based incentive systems, it is an ingredient not essential to other kinds of teacher incentive systems

It is possible to have mixed systems Consider two master teacher programs One identifies master teachers by determining that their job performance exceeds some designated standard and pays them more than teachers whose performance does not exceed the standard The second identifies master teachers on the basis of job performance but rewards them only if they assume extra responsibilities such as training new teachers The first program is primarily performance-based The second is primarily responsibility-based (although superior performance makes teachers eligible for extra responsibility)

The remainder of this paper will focus only on performance-based incentives because it is primarily the validity of the argument linking incentives to performance that must be tested by future program evaluations This approach does not deny the importance of incentives based on status or responsibility, which have historically formed the basis for almost all teacher compensation and reward systems and will likely continue to do so Rather, it directs attention to the unique problems of assessing systems that make evaluation of performance a prerequisite for exceptional rewards System evaluators must first be able to answer the question "Is the system rewarding teachers for superior performance?" before they can answer "Does rewarding superior teachers improve education?"

2. CLARIFYING ASSUMPTIONS

All performanced-based incentive systems are intended to promote excellence in teaching Defining excellence is problematical, but once a definition is adopted, the purpose of evaluating an incentive system is to see if it brings about excellence so defined If the definition is wrong, the system may not be worth implementing An appropriate program evaluation will show whether the problem lies with the definition or the implementation



Certain assumptions about the nature of teaching excellence apply to all performance-based incentive systems and have implications for their design Failure to make these assumptions explicit can lead to unclear or misstated objectives or to a mismatch of objectives and activities It may also prevent meaningful evaluation

Assumptions in the following three areas are crucial

- ***Distribution of teaching skill:*** **How is teaching skill assumed to be distributed? Can only a few teachers achieve excellence, or can all teachers? Does the system emphasize identification of a select few or improvement of all?**
- ***Interdependence:*** **Is excellent teaching considered primarily an individual activity or a team effort? Can individual teachers produce excellence, or does excellence transcend the individual classroom?**
- ***Learner outcomes:*** **Do processes (what teachers do) constitute teaching excellence or are learner outcomes the measure of excellence? Is excellent teaching separable from its results? If learner outcomes are crucial to excellence, how much are they affected by variables like student ability, previous learning, home and family environment, school environment?**

Consider first the distribution of teaching skills One might envision three different incentive systems resulting from different assumptions

NEAT WORK

- It is assumed that only a few teachers are or can be outstanding The objective of the incentive system would be to identify them and encourage them to remain in teaching Quotas would be restricted The identity of reward recipients might be protected to avoid negative responses by their peers
- It is assumed that only a few teachers are outstanding, but that many more *could* be, given more training and support The objective would be to identify outstanding teachers and encourage them to serve as models of excellence Quotas would be loose, and reward recipients would be encouraged to interact widely with other teachers
- It is assumed that most teachers are already capable of excellence, needing only proper motivation to perform at peak ability The objective would be to motivate better performance No quotas would be set Every teacher would have an opportunity to earn a reward, and teachers who attain designated performance standards would be publicly recognized

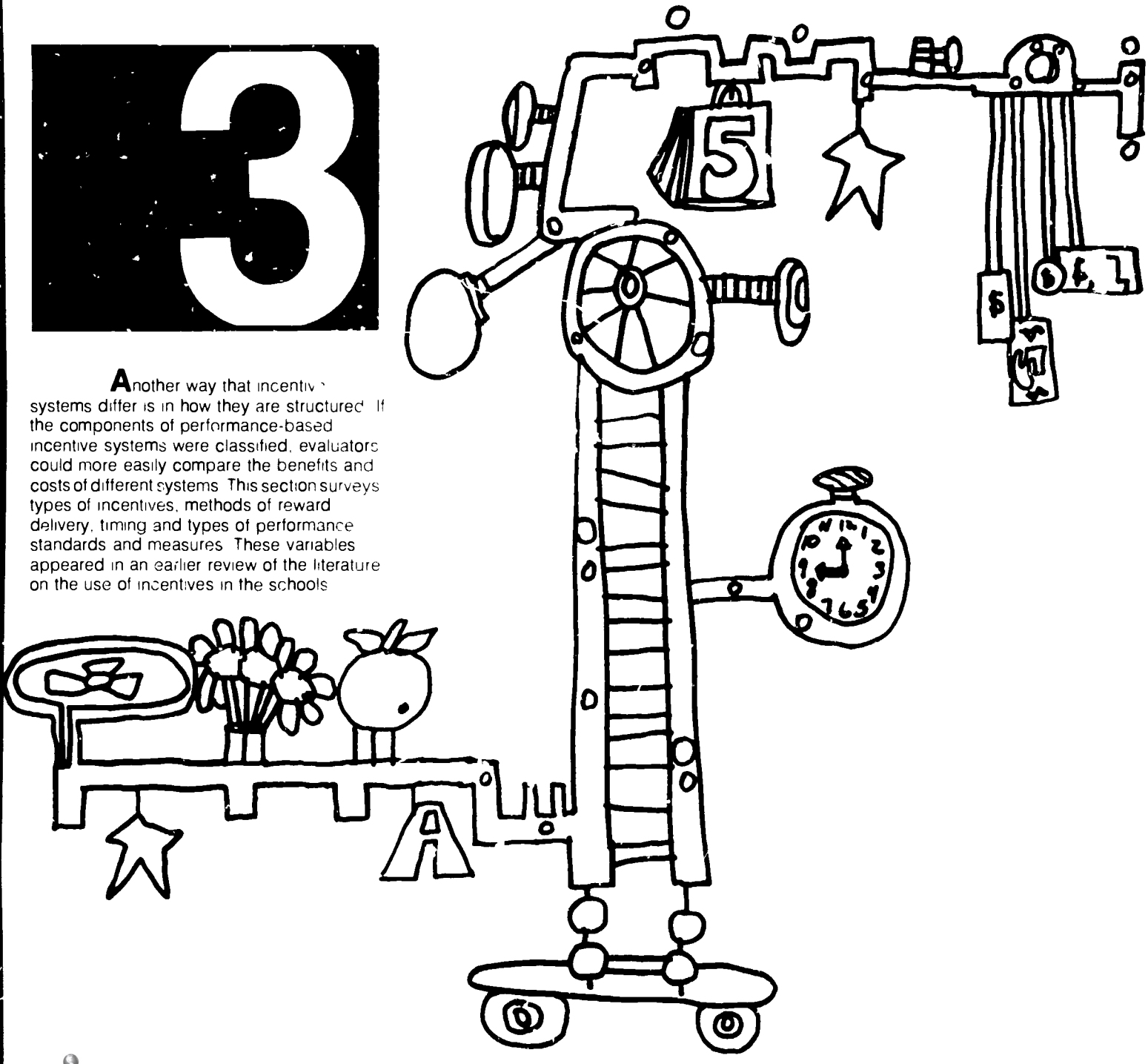
An examole of a mismatch of objectives and design would be attempting to improve virtually all teachers by rewarding a tiny fraction and keeping their identities secret

In the area of interdependence, one might assume that excellence is largely a function of collective efforts, say of all the teachers in a school One would then establish performance standards for schools and reward schools that meet or exceed these standards If this assumption were combined with the assumption that all teachers can be outstanding with training and support, the objective of the incentive system would be to identify outstanding schools' teachers and encourage them to serve as models of excellence

Assumptions about the role of "learner outcomes" would manifest themselves in decisions about whether to include measures of student learning in performance standards If outcomes were assumed not to be suitable measures, the objective of the incentive system would be to influence teaching practices or school organization

All three assumptions vary independently of each other and combine to produce different incentive designs The configuration of assumptions that underlie an incentive system influences objectives and implementation strategies If system designers examine their assumptions carefully, they can select the most appropriate objectives and strategies This, in turn, can set the stage for meaningful evaluation

3. PROGRAM OPERATIONS



Another way that incentive systems differ is in how they are structured. If the components of performance-based incentive systems were classified, evaluators could more easily compare the benefits and costs of different systems. This section surveys types of incentives, methods of reward delivery, timing and types of performance standards and measures. These variables appeared in an earlier review of the literature on the use of incentives in the schools.

Types of Incentives

Monetary Incentives

As a general principle, the most effective reward satisfies the most salient needs perceived by the potential recipient without producing significant negative side effects Because perceived needs and the salience of those needs differ considerably from person to person, rewards often differ in their effectiveness This explains the popularity of flexible rewards like cash, which can readily be converted into a wide range of need-satisfying materials and events But cash may have undesirable side effects such as taxability and high potential for engendering negative feelings like envy while squeezing meaningful amounts of cash out of the constrained budgets of many school districts may be difficult * The following variations on cash as incentives all require some form of expenditure or obligation but they may avoid some of the negative side effects of direct pa' ients to teachers

- **Drawing accounts that award recipients can use for educational materials or activities**
- **Educational scholarships or forgivable loans that permit recipients to acquire further education**
- **Paid activities such as educational travel**
- **Deferred benefits, such as extra retirement benefits**
- **A "menu" of rewards from which recipients can choose**

Note, however, that rewards of additional instructional resources can widen the performance gap between superior and other teachers, so a district that believes all teachers can improve would not want to use such rewards And any type of reward can prompt resentment

Nonmonetary Incentives

One of the more interesting features of current teacher incentive plans is the expanded use of **nonmonetary** rewards that do not require direct cash expenditures Money may in some instances be less cost effective than other rewards Under certain conditions, praise and knowledge of results can satisfy strongly perceived individual needs Many nonmonetary incentives have a long history of use in education Following are some nonmonetary rewards for meritorious eaching

- **Public recognition: 'teacher of the year" awards**
- **Peer recognitior.: designation of "master teachers" as successful professionals**
- **Restructuring of the work environment: giving recipients more released time, options to work part time, more discretion in determining where and what to teach**
- **Recognition and awards for schools: the Secretary of Education's program of recognition for ef'ective schools**

All of these incentives are based primarily on praise and recognition To some extent, they are also based on feedback, because contingent praise conveys the information that standards have been exceeded Some researchers have pointed out that knowledge of results can be rewarding in and of itself, if it conveys specific information about performance in a situation where successful performance is valued This means that any formal teacher evaluation system could be rewarding if it set measurable performance goals and provided feedback to teachers about how well they meet those goals

Punishment

The systematic connection of negative sanctions with poor performance is the other side of the incentives coin Creating such a connection is an often-stated but seldom-achieved goal of many teacher evaluation systems Performance-based layoffs have occurred, however Johnson describes general instances and points out that tenure laws and collective bargaining agreements do not raise insurmountable barriers to the development of functional "negative incentive" systems

Methods of Delivering Rewards

Quotas

Incentive systems may or may not restrict the number of teachers who can earn awards If the designers of a system assume that [illegible] normally distributed (i.e., along a bell-shaped curve), they may determine that some arbitrary percentage (usually small) of teachers should be rewarded Designers who assume that all or most

*Hatry and Greiner estimate that meaningful bonuses for teachers must exceed $1,000 per year

teachers are capable of excellence — since training, certification and selection requirements have screened out teachers incapable of excellence — may avoid quotas

Rewards for Performance

Mechanisms for delivering rewards (usually monetary rewards) to individuals include

- **One-time cash bonuses, stipends, honoraria or supplemental contracts**
- **Permanent "merit" increases on uniform salary scales (i.e., increases granted above and beyond contractually guaranteed cost-of-living or longevity increases)**
- **Use of a separate "merit" salary scale in addition to the uniform scale**
- **A "career ladder" that provides several pay scale ranges — for probationary, professional and master teachers, for example**

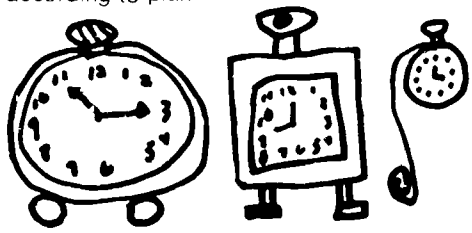
One variation on a basic bonus mechanism is a token system, such as the "point" system developed in the Houston Independent School District's 'Second Mile Plan.' Under this system, many different aspects of a teacher's performance and other qualifications are evaluated separately and translated into points, differential bonuses that add as much as 30% to base pay depend on total points accumulated

Rewards for Groups

Systems for delivering rewards to groups either **1.** provide each member of a designated group with the same reward or **2.** allow group members to determine how their reward will be apportioned The most common type of group is the entire staff of a single school, as in Houston and Dallas Other groups are teams or departments within schools, intradistrict clusters of schools or even intrastate clusters Administrators and noncertificated personnel may be included in incentive clusters if it is assumed that nonteaching personnel enhance teaching effectiveness

Timing and Reliability

Delivering rewards soon after the qualifying evaluation is very important If a teacher doubts the reliability of the delivery system or if rewards are delivered long after performance is measured, incentive effects can be seriously weakened Potential recipients of rewards must understand the delivery mechanism well before they are expected to demonstrate meritorious performance The mechanism should operate according to plan



The choice of delivery mechanism has implications for the timing of awards Salary increments are normally delivered annually as part of the regular personnel review process Bonuses can be awarded annually or more often, depending on how frequently performance is measured The deleterious effects of delay between measuring performance and reward can be mitigated by ensuring that feedback on performances is delivered rapidly

A special delivery mechanism must usually be developed for nonmonetary rewards Although these can be less complex administratively than mechanisms for delivering cash, ceremonies must be organized, plaques engraved publicity arranged, and so forth The sooner a reward (or at least notification of an award) is delivered, the greater the incentive effect is likely to be

Measures of Performance

Valid and reliable measurements of performance are critical to any teacher incentive system. While selecting appropriate measures is extremely difficult, performance measurement techniques are readily categorized. The major decision for system designers is whether to use process measures or outcome measures. In either case, the performance of individuals or groups can be compared to the achievements of their peers or they can be compared to pre-established standards.

Process Measures

Following are some common measurement techniques that look at what teachers do:

- **Overall ratings (usually unstructured) by administrators**
- **Direct observation by peers, administrators or trained outside raters using structured protocols**
- **Ratings by students or parents**
- **Job performance tests or simulations**
- **Routine personnel records on absenteeism, inservice participation, etc.**

Outcome Measures

Outcome measures are based on such measurements of student learning as standardized achievement tests and criterion-referenced tests. Statistical techniques can be used to reduce the influence of environmental factors or prior learning on outcome measures. Other measures include drop-out rates, absenteeism or samples of student work.

4. IMPLEMENTATION ANALYSIS

Before evaluating any program evaluators should be sure that the program has clear and acceptably stated goals and implementation activities that are likely to accomplish them In addition, it must be possible to obtain from the program appropriate information about operations and outcomes Through a process called "evaluability assessment," evaluators are urged to examine whether the program meets the following requirements

- **Stated program goals and actual goals are reasonably congruent.**
- **The hypothesized links between intended program inputs, activities and outcomes are both logically and empirically sound (i.e., are based on consistent reasoning and on the best available evidence about cause-effect relationships**
- **Actual program inputs and activities (i.e., the program in operation) match those that were intended.**

This process, also called "implementation analysis," is a systematic way of verifying that the program as implemented is a performance-based incentive system and is capable of being accurately evaluated Prior to initiating impact or cost/benefit studies Implementation analysis sets the stage for successful evaluation of the new wave of teacher incentive trials under way

Are Stated and Actual Goals Congruent?

Four goals are most commonly advocated for new experiments with teacher incentives

- **Attracting and retaining better quality teachers**
- **Improving teaching and learning**
- **Increasing accountability of teachers and schools to the public**
- **Increasing teachers' responsibilities in setting school direction**

But many times the stated goals of teacher incentive systems turn out, on closer examination, to differ from those the systems are actually designed to achieve Evaluations

based on unclear or misstated goals will not be accurate More seriously, misunderstandings among participants in systems with misstated goals can easily jeopardize the success of the systems

Assessment of an incentive system should begin by examining the congruence of stated and actual goals Actual goals are inferred from the elements of job performance selected for measurement and reward — the job standards that must be met or exceeded before incentives are awarded In other words, desired system outcomes are defined operationally by the performance measures and criteria of adequacy that have been adopted In performance-based systems criteria are most often applied to some measure of effective teaching An illustration of a teaching effectiveness performance measure is "maximizing engaged learning time", in a particular incentive system, the criterion of "using 75% of class time in engaged learning" might be applied to this measure Teachers who consistently meet or exceed this designated standard are rewarded It may be inferred that the actual desired outcome of this system is "to improve teaching " The system s stated goal should reflect this

Are the Hypothesized Links Between Inputs. Activities and Goals Logically and Empirically Sound?

The more direct and "tested" are the hypothesized links between the intended process components and outcomes of an incentive system, the more confident one can be that they are logically and empirically sound Figure 1 illustrates three simplified rationales linking performance measures and criteria to the goals for the performance-based system of which they are a part

In the first example one might disagree with some of the hypothesized links but they are straightforward and each can be supported by empirical evidence available in the published research literature In the second example, the rationale can be similarly followed and is at least plausible as shown by the considerable popular support for this position, but empirical evidence that merit bonuses will attract a different (and better type of person) into teaching is lacking

Now consider example 3, which illustrates an illogical rationale for a reward system designed to achieve the same goal of improving teaching as the first example In this case, the reward is given for a measure that is not stated in either the performance criterion or the system goal This system will not work because teachers are not rewarded for the behaviors on which they are evaluated If they see that they consistently meet or exceed the performance criterion without ever receiving a reward, they may become discouraged and cease trying to meet it

Similarly the reward system gives teachers no guidance about what behaviors it expects of them they do not know whether to increase their engaged learning time (and by how much) or to improve their written lesson plans or whether some yet undiscovered performance criterion is what really counts In any event, one cannot tell if the system's goal has been achieved because it is not apparent what that goal really is

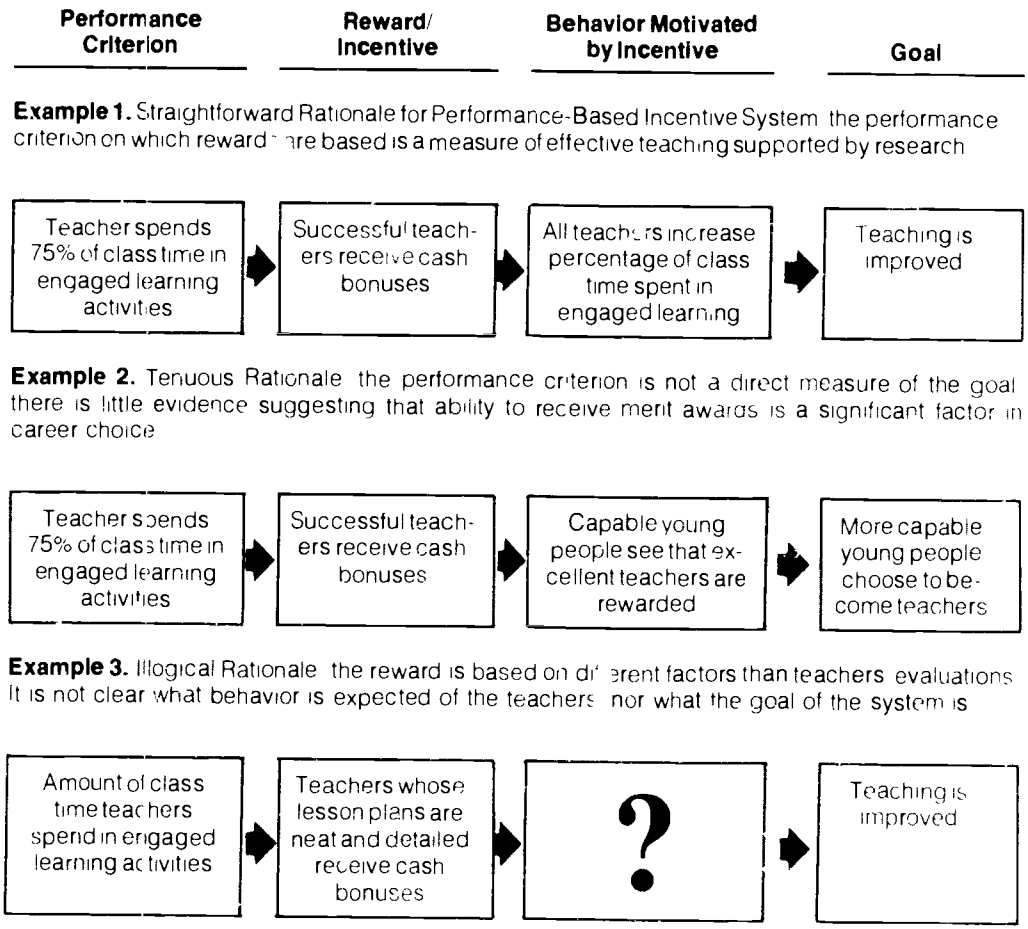
In implementation analysis, carefully mapping out the rationale linking a system's intended processes and outcomes can point out inconsistencies, gaps and probable failure points (In fact, this exercise should be done prior to implementation to find and correct weaknesses and inconsistencies in planning) Implementation and evaluation should be deferred for any incentive system for which a logically straightforward and empirically defensible rationale cannot be articulated

Do Actual Program Components Match Intents?

Implementation analysis requires one further step examining the program as it exists in practice Adequately carrying out this step requires observations and interviews with those who are implementing the incentive system and are being affected by it The following issues must be addressed

Figure 1.

Three Types of Rationales for Performance-Based Reward Systems



- **Extent to which implementers and participants understand and share the same intended outcomes**

  An example of failure to achieve common understanding of goals, standards and procedures would occur where teachers were not involved in planning the system and held different views from the administration and each other.

- **Extent to which program activities are being implemented as planned**

  For example, failure to train those who evaluate teachers could mean that they do not carry out their responsibilities as accurately as planned.

- **Extent to which unanticipated activities and negative side-effects interfere with the validity of hypothesized cause-effect linkages**

  A sudden budget shortfall in the middle of a multiyear experiment could eliminate money for rewards, or a new superintendent could reduce commitment to the program. Unrewarded teachers might be unexpectedly resentful rather than motivated.

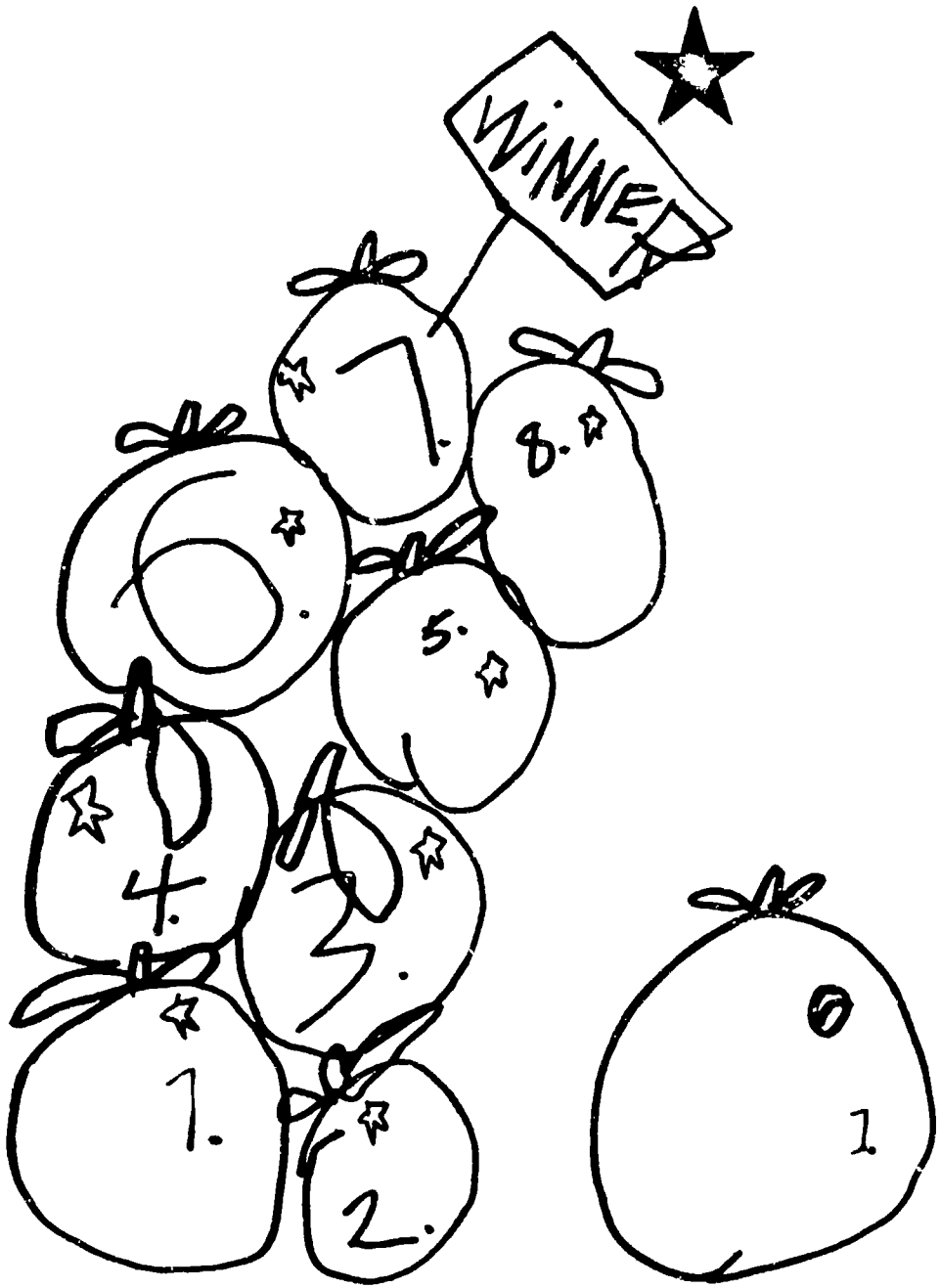
- **Likelihood that the program as implemented can accomplish its intended outcomes.**

  No implementation goes exactly as planned; how much deviation will still permit goal achievement needs to be examined.

If implementation analysis shows that the reality of the program does not match its intent, evaluation should be deferred or redirected. An important benefit of this stage of analysis is developing a set of recommendations for improving implementation, also known as formative evaluation. This potential argues for prompt and continuous monitoring of program operations.

5. PROSPECTS FOR LEARNING FROM INCENTIVE EXPERIMENTS

Many new teacher incentive systems are currently operating or will begin operating in the next year. Some systems will have state-mandated specifications (e.g., systems in Florida, Virginia and Tennessee). Most will be locally developed in response to locally perceived needs and constraints. Some will feature performance-based incentives, others will combine performance-based and responsibility- or status-based incentives. There will be many different combinations of assumptions about teaching excellence, goals and process components — each combination shaped by a different planning history and context. What are the chances that we will learn enough this time around to decide whether superior teachers can indeed be rewarded? What will we be able to learn about the benefits and costs of various reward systems?



The past suggests cautions For example, the nation was almost 15 years into an experiment with compensatory education before evaluation models and technical assistance centers were introduced that allowed generalization about the effects of the Elementary and Secondary Education Act (ESEA), Title I (now the Education Consolidation Improvement Act, Chapter 1) Without mandates, technical assistance, standard assessment models, some common terminology and quality assurance evaluations of teacher incentive systems may fare worse

Use of a Common Conceptual Framework

If evaluators use a common terminology like that proposed in this paper, they will provide a sound basis for discussing what has been attempted and accomplished

Below are questions that evaluators can use to organize their documentation

1 What is the primary factor upon which rewards depend — job performance or job responsibilities? If the answer is job responsibilities, the system is not primarily performance-based, documentation should make this clear

2 What basic assumptions about teaching excellence underlie the incentive system?
   a Distribution of teaching skill
   b Role of interdependence
   c Inclusion of learner outcomes

3 What components are intended?
   a Types of reward
      (i) Monetary
      (ii) Nonmonetary
      (iii) Punitive
   b Who is rewarded?
      (i) Restrictive/nonrestrictive quotas
      (ii) Individuals/groups
   c Performance measurements
      (i) Process/outcome
      (ii) Norm-referenced/criterion-referenced

Verification of System Design and Implementation

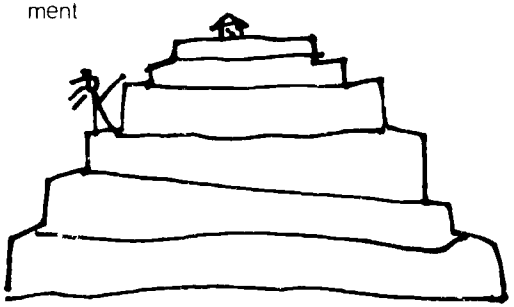
Even given a common terminology, meaningful aggregation of information about a system will be precluded if stated and de facto goals are not congruent, if system design is not sound and if implementation does not match intent Evaluators should be able to answer the following questions

1 What are the stated goals of this incentive system?
   a Influencing recruitment
   b Influencing retention
   c Influencing motivation
   d Influencing student achievement

2 What actual goals can be inferred from its design? Are they congruent with stated goals?
3 Is the stated rationale for this system explicit? Is it both logically and empirically sound?
4 Does system implementation match stated intent?

Additional Steps

Implementation analysis establishes that programs are in a condition to be evaluated. The next step, of course, is actually to evaluate costs, benefits and effectiveness and to compare the results of different incentive systems. Experience with ESEA Title I suggests some useful additional steps to prepare for evaluating performance-based teacher incentive systems. Initially, evaluation models need to be developed for assessing both processes and outcomes and covering the range of likely goals and implementation components. Models must be appropriate both for simple incentive systems with one or two components and for complex systems with many components, including some not based on performance. The models must allow evaluators to produce information that is useful to local decision makers — to the school administrators, teachers, parents and other citizens of the community who will decide whether to keep, revise or drop performance-based incentives. The models must accommodate outcomes that are not readily quantifiable, dealing as they do in human values and attitudes. If the models meet these needs, it is likely they will be widely used, even if no state or federal funding is provided as encouragement.



After acceptable models have been developed, technical assistance can be provided to stimulate use of the models and to support their correct use. Publications, conferences, regional workshops and assistance at key sites can be useful.

If these additional steps are taken, new teacher incentive systems should be better designed, and we should be able to determine more precisely than ever before whether superior teachers can be rewarded and what the benefits of doing so are.

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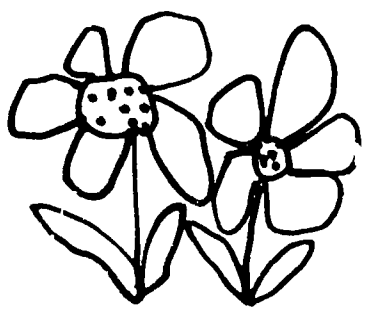

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